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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/537,725

11/08/2005

Rudolf Bonsch

MDP-103

5175

54630 7590 12/29/2009

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EXAMINER

PO, MING CHEUNG

ART UNIT

PAPER NUMBER

1797

MAIL DATE

DELIVERY MODE

12/29/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/537,725	Applicant(s) BONSCH ET AL.	
	Examiner MING CHEUNG PO	Art Unit 1797	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/6/2009 has been entered.

Office Action Summary

2. This is the response to request for continued examination for application 10/537725 filed on 10/06/2009.
3. Claims 1-3 are pending and have been fully considered.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over ERGUN et al. (USPGPUB 2002/).

ERGUN et al. teaches a method for producing fatty acid methyl ester in paragraphs 66-77. **Saturated and unsaturated fats of vegetable and/or animal origins** is mixed with alkaline solution and an alcohol, particular **methanol** in a mixing

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vessel to create **fatty acid methyl esters in an emulsion**. ERGUN et al. teaches that the reaction temperature may be from **40-70°C**. ERGUN et al. further teaches in paragraph 24 that the fatty acid methyl ester is cleaned after the separation of the emulsion phases.

ERGUN et al. does not seem to explicitly state subjecting the crude methyl ester later to intensively inline mixing at a temperature between 25 and 60°C with a strong acid.

However, ERGUN et al. does teach in paragraph 5 known methods include subjecting the transesterified liquid to neutralization with phosphoric acid, citric acid or other acids, whereby soap and the potassium salts of the acids are sedimented.

Although ERGUN et al. teaches in paragraph 15 that the reference method is not suited for the sedimentation method, it would be obvious to one of ordinary skill in the art to mix the fatty acid methyl ester obtained from the separation of the emulsion phases with potassium salts under the same mixing conditions as the transesterification process. ERGUN et al. teaches in paragraphs 23-27 that sedimentation phases are no longer performed mechanically but with methods using filtration. Instead of waiting for the potassium salts to settle, they would be removed by filtration.

The motivation to do so can be found in lines 55-67 of column 2. ERGUN et al. teaches that by accelerating the reaction to form an emulsion, the boundary surfaces are increased and the chemical balance state can be reached much sooner.

ERGUN et al. also does not seem to explicitly teach subjecting the ester layer to a thorough water wash and a subsequent drying.

However, it is common knowledge what a water wash and drying may accomplish in purifying a fatty acid methyl ester. ERGUN et al. states in paragraph 5 that water may be used to absorb the soap, potassium solution and then the water phase is removed.

It would be obvious to one of ordinary skill in the art to mix the fatty acid methyl ester obtained after filtration of the potassium salts with water under the same mixing conditions as the transesterification process.

Therefore, the invention as a whole would have been *prima facie* obvious to one of ordinary skill in the art at the time the invention was made.

Response to Arguments

6. Applicant's arguments with respect to claims 1-3 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. PORTNOFF et al. (USPGPUB 2005/0274065 A1) teaches a process for esterification and transesterification that uses a homogeneous catalyst and high shear conditions and emulsifying reagents. .

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to MING CHEUNG PO whose telephone number is (571)270-5552. The examiner can normally be reached on 9:00 - 4:00.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571)272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ming Cheung Po/
Patent Examiner

/Ellen M McAvoy/
Primary Examiner, Art Unit 1797